

Monomial x Polynomial

Recall the Product Rule: $x^a \cdot x^b =$

Directions: Find each product. Final answers must be in standard form.		
1. $h(h + 4)$	2. $k(k - 9)$	3. $9a(a + 1)$
4. $6p(p - 8)$	5. $3c(-2c - 5)$	6. $-4g^2(2g + 7)$
7. $x(x^2 - x + 3)$	8. $5m^2(3m^2 - m - 7)$	9. $-3n(n^2 - 2n + 8)$
10. $-2x(6x^2 - 12x + 18)$	11. $3xy(x^2 + xy + y^2)$	12. $5r^2s^2(-2r^2 + 3rs - 4s^2)$
13. $3ab(4a^2 - 7b^3)$	14. $-4c^3d^2(9c^2d^2 - 4cd^5)$	15. $10m^4n(-2mn^3 + 3n)$

Directions: Distribute, then simplify the remaining expression. Final answer must be in standard form.	
16. $-2x(3x - 4) + 7x$	17. $5w(-7w + 3) + 2w(-2w^2 + 19w + 2)$
18. $y(y + 4) - y(y - 3) - 9y$	19. $6x(2x - 3) - 5(2x^2 + 9x - 3)$
20. $-2(3m^3 + 5m + 6) + 3m(2m^2 + 3m + 1)$	21. $-3y(7y - 2) + 3(y^2 + 2y + 1) - 3y(-5y + 3)$

22. $4x^2(2x^2 + x - 5) - x(x^3 + 5x^2 - 3) + 17$

23. $-2x(x^3 - 6x^2 + 6) + 4x^3 - (5x^4 + 10x)$

24. $4b[2a^2 - 5(3ab - 2b^2)] + 29ab^2$

25. $2y(6x - 4x^2y) + 13x^2y^2 - 6$

Geometric Application:

Find the area of the shaded region.

